STEENS MOUNTAIN

Recreation Plan

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Burns District, Oregon

S T E E N S M O U N T A I N

Recreation Plan

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January 1972

IN REPLY REFER TO:
6132 (933)
Steens Mountain

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Oregon State Office
P. O. Box 2965 (729 NE Oregon Street)
Portland, Oregon 97208

January 31, 1972

Memorandum

To: District Manager, Burns

From: State Director, Oregon

Subject: Steens Mountain Recreation Plan

The Steens Mountain Recreation planning proposal was presented to the public on July 16, 1971 in conjunction with the official dedication of the Steens Mountain Recreation Lands.

At that time, I announced that a public meeting would be held in Burns, Oregon on September 17, 1971 to receive public comment on the proposal. The public comments at the meeting, and the written statements from various organizations, pointed out several omissions and raised some points that I felt needed additional clarification. In the attached plan, we have attempted to clarify the questions raised by various groups and individuals.

The changes are of a minor nature and in no way do they change the intent of the original proposal. As a result, it will not be necessary to again go to the general public for additional comment. We will continue to meet with, and seek the advice of, the Steens Mountain Resource Committee on matters concerning the management and development of all the resources in this area.

The attached plan is approved and you may proceed with its implementation when funds are available.

Richie D. Croft

FOREWORD

The Bureau of Land Management (1970), in cooperation with the Steens Mountain Resource Committee, determined that an updated version of earlier plans of management for Steens Mountain was necessary. In 1965 a "Steens Mountain Multiple Use Resource Management Plan" was prepared and later a "Steens Mountain Recreation Plan". New emphasis on environmental protection in national policies and increasing public demand requires a new management orientation toward the mountain and its resources.

The Steens Mountain Coordinating Committee (Appendix A) was formed following a public meeting on November 17, 1959, at Burns, Oregon. The purpose of this committee as described by Mr. Ed Woozley was to "develop a long range, comprehensive, cooperative resource program for the Steens Mountain". This committee has met at least once each year since its formation. This group has been very cooperative and has contributed a great deal of information and advice that has been incorporated into this plan for the management of recreational use on the Steens.

In addition to local citizens and individuals owning land on the Steens, representatives from various organizations have attended past meetings (see Appendix A).

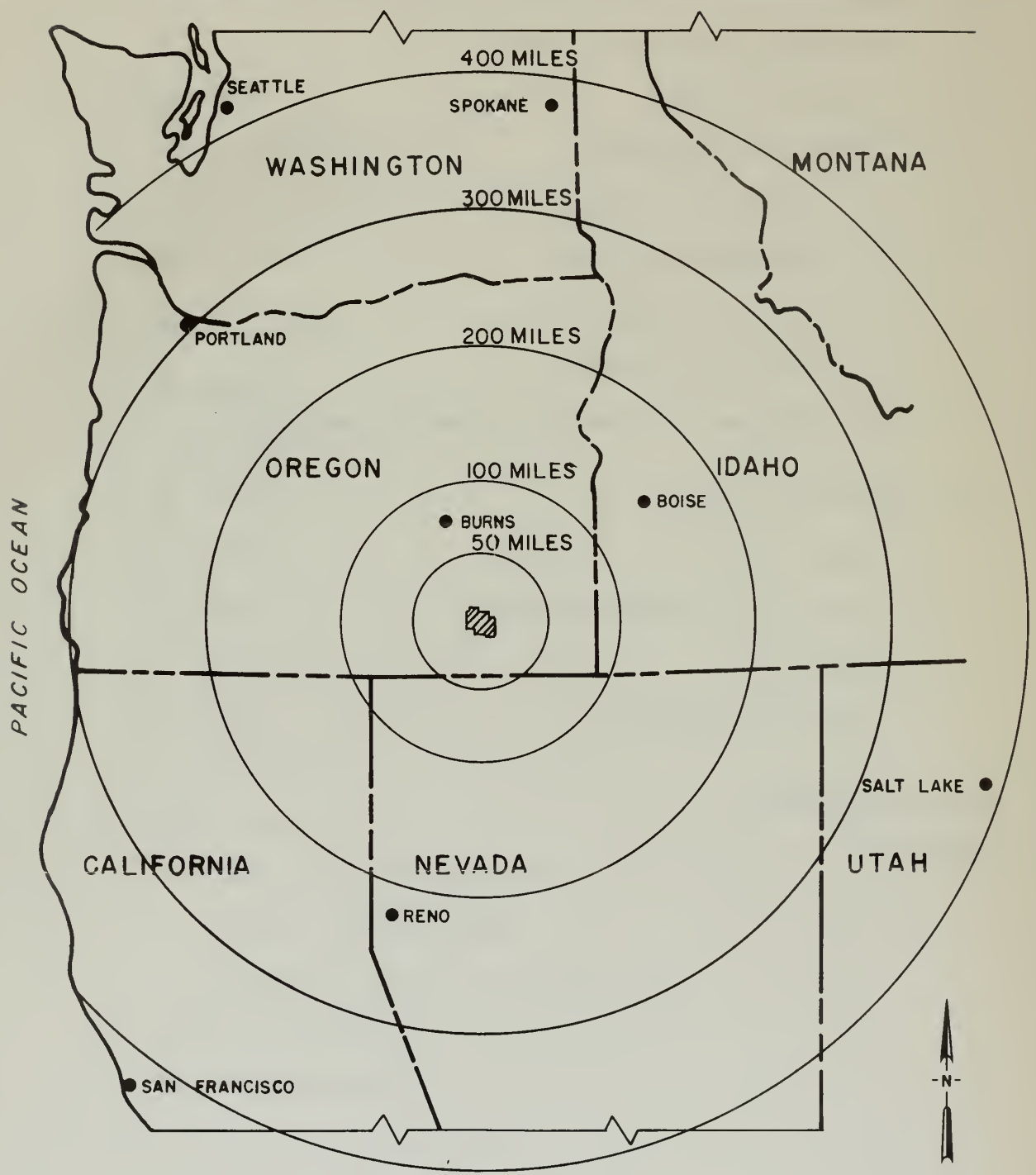
BLM specialists in resource management prepared this plan. Recommendations of the Steens Mountain Resource Committee and numerous other organizations and individuals are incorporated in this plan. Only through public participation in the planning process can a satisfactory management direction for national resources be developed.

The boundaries of the area included in this plan were determined in light of the resources of the mountain, access, land ownership, and the necessity of creating a cohesive land management unit. The area totals 193,806 acres of land in Harney County, Oregon.

THIS REPORT WAS PREPARED AS A PART OF THE BUREAU OF LAND MANAGEMENT PLANNING SYSTEM FOR THE MANAGEMENT OF NATURAL RESOURCES. PUBLICATION OF THE FINDINGS AND RECOMMENDATIONS HEREIN SHOULD NOT BE CONSTRUED AS REPRESENTING EITHER THE APPROVAL OR DISAPPROVAL OF THE SECRETARY OF THE INTERIOR. THE PURPOSE OF THIS REPORT IS TO PROVIDE INFORMATION AND ALTERNATIVES FOR FURTHER CONSIDERATION BY THE BUREAU OF LAND MANAGEMENT, THE SECRETARY OF THE INTERIOR, AND OTHER FEDERAL AGENCIES.

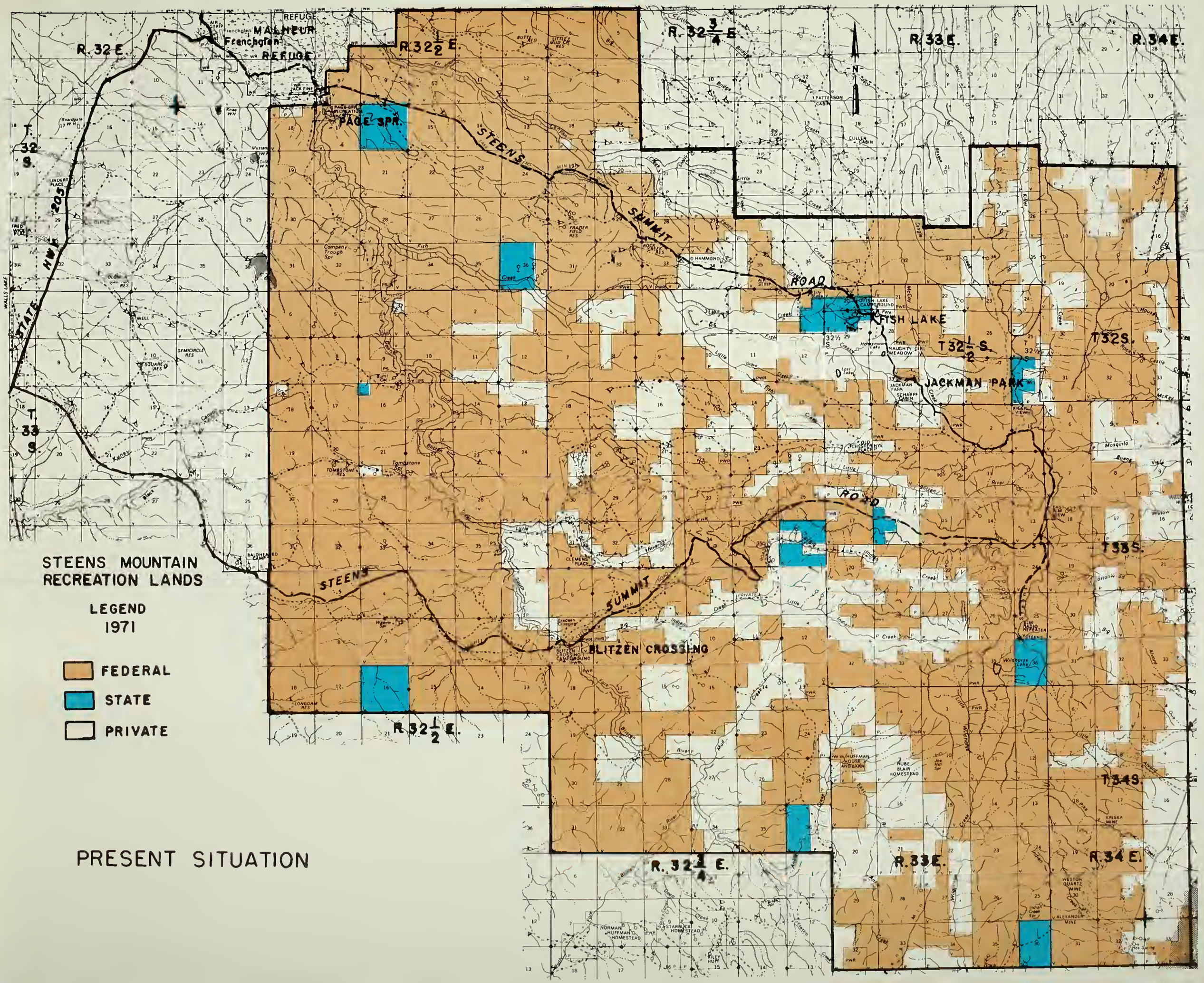
C O N T E N T S

U.S. DEPARTMENT OF INTERIOR- BUREAU OF LAND MANAGEMENT



LOCATION MAP

STEENS MOUNTAIN RECREATION LANDS AREA


R. 32 E.
REFUGE
MALHEUR
Frenchglen
REFUGE
R. 32½ E.
R. 32¾ E.
R. 33 E.
R. 34 E.
T. 32 S.
T. 33 S.
STATE HWY 205
PAGE SPR.
STEENS
SUMMIT
ROAD
FISH LAKE
FISH LAKE CAMPGROUND
NAUGHTY GIRL MEADOW
JACKMAN PARK
JACKMAN PARK SCHARFF CABIN
KIGER VIEW
T 32½ S.
T 32 S.
T 33 S.
T 34 S.
BLITZEN CROSSING
BLITZEN CROSSING CAMPGROUND
R. 32½ E.
R. 32¾ E.
R. 33 E.
R. 34 E.
STEENS MOUNTAIN RECREATION LANDS
LEGEND
1971
FEDERAL
STATE
PRIVATE
PRESENT SITUATION

PART I - INTRODUCTION

A. PURPOSE OF THIS PLAN

The purpose of this plan is to develop an action program for the management of recreational use on Steens Mountain.

The primary attraction and recreation value of Steens Mountain is its natural environment. Therefore, a primary management objective is restoration and preservation of this environment.

B. OBJECTIVES OF THIS PLAN

The plan is based upon assumptions that broad public land management objectives on Steens Mountain should be:

To provide quality recreation opportunities in relation to the other resources. There is a need to maintain a balance between the opportunities for extensive recreation (the room to roam type) and intensive recreation (which requires campgrounds, picnic areas, and other facilities).

A wide range of recreation opportunities are available on Steens Mountain. This plan considers points of public congregation, opportunities and attractions at various places on the mountain, and the physical suitability of the mountain to accommodate the proposed standard of development without damage to the resources. Other detailed activity plans are being, or have been, prepared for the other resources in this area.

C. SUMMARY OF THE PLAN

1. Management Opportunities. This part of the plan sets out suggested modifications of present uses on the mountain. The mountain is considered in six zones and management objectives for each zone are recommended.

   In addition, the mountain is also considered in four vegetative belts, each of which requires some particular management emphasis. Certain special considerations affecting each of the vegetative belts are set out.

   This plan points out the danger to Steens Mountain from unregulated recreation use. Those steps necessary to control this use are discussed in the "Management Opportunities" section.

2. Development Plan. This part of the proposal sets out actions which could be taken to increase enjoyment of the mountain as well as protect its environment from degradation.

   a. Short term needs. First priority will be given to actions necessary to restore and prevent further damage to the mountain. Second priority are actions necessary to accommodate resource uses.

      (1) Prepare and publish user information brochure including rules for use of area.

      (2) Install gates to manage access above 6,000 feet elevation.

      (3) Revegetate disturbed areas.

      (4) Construct facilities at viewpoints and roadside points of interest where damage is occurring.

      (5) Initial construction of Buckskin Complex.

      (6) Initiate land tenure adjustments.

      (7) Complete soil, water, and vegetative surveys.

      (8) Complete research needed for interpretive program.

      (9) Develop potable water supply at Fish Lake.

      (10) Improve road from Page Springs to Lily Lake.

      (11) Construct Frenchglen entrance facilities and install initial signing.

      (12) Complete plans for grazing management and wildlife habitat management.

      (13) Initial construction of administrative unit and visitor information center.

   b. Long term needs. Priorities in this category are similar to those under "Short Term Needs", but actions will be taken as projections and experience data show them to be necessary.

      (1) Complete Buckskin Complex.

Kiger Gorge is the largest and best known example of glacial action.

Bare, exposed soils at Kiger viewpoint are easily eroded by wind and water.

(2) Complete and install interpretive facilities.

(3) Complete improvement of road.

(4) Complete visitor center and administrative site.

(5) Complete trail system.

(6) Develop Blitzen Complex.

(7) Provide fishing impoundments.

(8) Post boundaries of area.

(9) Complete land tenure adjustments.

(10) Provide viewpoints and roadside points of interest as necessary.

(11) Develop Fish Lake Complex.

PART II - EVALUATION OF AREA

A. RECREATION

1. Scenery. Leaving Frenchglen via the summit road, the viewer first crosses a short portion of the Malheur National Wildlife Refuge where he may see many varieties of wildlife. As he proceeds toward the mountain, he crosses the Donner und Blitzen River and enters an area characterized by typical Oregon high desert vegetation. A few miles up the road, he enters a juniper zone. As his ascent continues, he leaves the well-defined juniper forest behind and emerges into open country with quaking aspen and other vegetation. Lily Lake lying adjacent to the Loop Road is covered with waterlilies. A mile farther is Fish Lake, largest on the mountain, which offers the contrast of aspen and blue water.

   From Fish Lake, the magnificance of the mountain is visible. Perhaps the most significant visual impact Steens Mountain creates in the viewer is one of awe. This vast geological structure exposes the viewer to the sheer power of natural forces acting over eons of time. From the east summit, the viewer looks across rocky cathedrals and spires to the gleaming white Alvord Desert about a mile below. Occasionally, bighorn sheep may be seen.

   Next is a favorite viewpoint overlooking Wildhorse Lake. On all sides, the massive gorges carved by glacial action are seen by the viewer. Colorful lichens cover the rugged rock walls of Kiger Gorge, Big and Little Indian Gorges, and others.

   The road turns west at the summit, ultimately to rejoin State Highway 205. The various vegetative zones are repeated on the descent. Again the viewer crosses the Donner und Blitzen River, to finally break out into Catlow Valley.

2. Wildlife. The Steens has long been a favorite area for fishermen and hunters. Deer, antelope, sage grouse, valley quail, mourning dove, and chukar are the most commonly hunted game species. The chukar partridge is a recent import that is now firmly established on many parts of the mountain. The Oregon State Game Commission has estimated that the mule deer herd on the Steens approximates 12,000 to 14,000 animals.

   Trout fishing in the permanent streams is an important part of the recreational use. Portions of these streams are not readily

Streams flowing from Steens Mountain provide excellent habitat for fish.

Antelope are common in the Steens Mountain area.

accessible but provide excellent angling for those who prefer to fish the more inaccessible areas. Two lakes also provide many hours of fishing enjoyment.

Fish Lake is near the Steens Mountain Summit Road and is easily accessible, while Wildhorse Lake is available to those who enjoy fishing in the more remote type areas. Wildhorse Lake contains cutthroat trout.

The Steens area contains many species of wildlife due to the great variation in topography and elevation. The Malheur National Wildlife Refuge lies adjacent to Steens Mountain and provides many hours of enjoyment to those who are birdwatchers and general wildlife enthusiasts.

The mountain has 53 mammal species, 227 birds, 10 fish, 4 amphibians and 11 reptile species. Important game species include mule deer, pronghorn antelope, bighorn sheep, sage grouse, chukars, quail and waterfowl. California bighorn sheep, which were once native, were reintroduced to the area in the early 1960s. Present numbers are estimated at about 70.

3. Cultural features or events. Cultural features include historic sites, prehistoric (archeological areas) sites, and other man-made features which arouse the interest and curiosity of visitors.

   There are a number of old homestead cabins and ranch buildings in the report area. The cabins have considerable historical interest. They are often made of native materials. There are also evidences of Indian and early military occupation. Artifacts and other objects of scientific importance are protected from disturbance by both Federal and State laws, and may not be collected or disturbed by private citizens on public lands.

4. Water bodies. There are a number of lakes in the report area important for recreation use or scenic beauty. Chief among these are Fish Lake (largest at 20 acres), Wildhorse Lake, Honeymoon Lake and others. The heavy winter snow pack and springs on the mountain also provide water for streams such as the Donner und Blitzen River, Ankle Creek, Cucamonga Creek, Fish Creek and Bridge Creek. Several of the glaciated gorges have creeks, including Kiger, Little Blitzen, Big Indian and McCoy.

5. Snow and ice features. Evidence shows that Steens Mountain was subjected to two major glacial advances. Although weather conditions have changed considerably since the late pleistocene epoch, snow is present in protected places at higher elevations most of the year.

The Department of Agriculture winter snow measurement at the Fish Creek snow course, elevation 7,900 feet, found that for the period 1953-1967, the average snow depth was 1.5 to 3 feet.

During the winter months this snow blanket extends from the top of the mountain to the lower reaches as well.

6. Ecological features. Three areas have been identified which are of outstanding importance for preservation in an undisturbed natural condition:

   a. Fir Groves. In addition to juniper, the only conifer in the Steens is Abies concolor, white fir. It is found in two small groves in Big and Little Fir Creeks between 5,900 and 6,200 feet elevation. Ring counts indicate ages of 120 years with evidence of prior fires. Reproduction appears vigorous.

   b. Little Blitzen. There is an area near the head of the Little Blitzen which could be established to preserve the habitat of certain rare, endemic (i.e., Cirsium peckii) and relic (i.e., Claytonia nevadensis) plant species.

   c. Kiger Gorge. There is an area at the head of Kiger Gorge which includes both glaciated and unglaciated portions. The Artic-alpine flora, and other plants, present a unique area with outstanding geological, biological and scenic values.

7. Primitive values. Part of the Steens Mountain offers opportunities to provide natural or primitive recreation experiences. The Steens area is remote from population centers. Man has despoiled parts of the mountain, but not irreparably.

   Most users now enter the area along the summit road from Frenchglen. This road and adjacent lands are incompatible with a roadless area where solitude, physical and mental challenge and wilderness characteristics could be paramount. There are no roads on the east face of Steens Mountain. Use of this area can be coordinated in order not to unduly disturb bighorn sheep on the east face. The effects of man have been least severe in this area. It is isolated from recreation users of the mountain by steep terrain.

B. PHYSIOGRAPHY

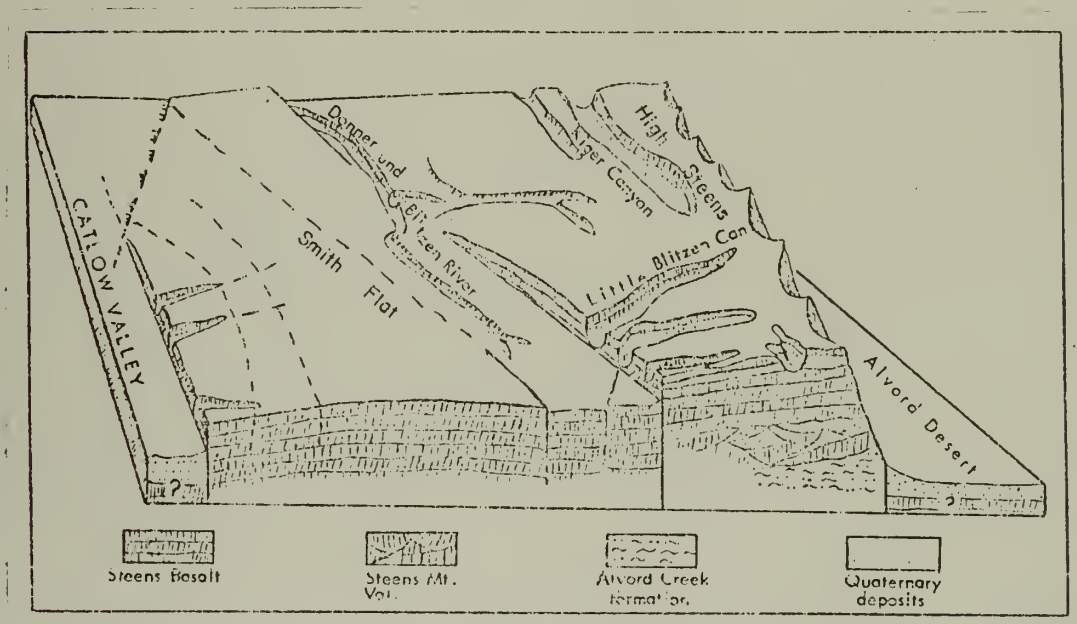
1. Geology. The summit of Steens Mountain is 9,733 feet above sea level--the highest point in Oregon which can be reached by car. The mountain is a giant fault block that rises abruptly almost

The east face of Steens Mountain

The work of glaciers

5,000 feet above the surrounding desert lands of southeastern Oregon. This elevation change occurs within a horizontal distance of approximately three miles. The mountain was shaped by glaciers more than a million years ago and contains some of the most striking examples of glacial action found on the North American continent.

The area displays numerous unusual topographic features, as a result of vulcanism, faulting, glaciation, and wind and water erosion. Topography varies from flat deserts, rolling foothills and deep canyons to steep, rugged escarpments. The varying topography is one of the main attractions offered the sight-seer, naturalist, and photographer.



Block diagram of a part of Steens Mountain. (J. Fryberger, 1959)

2. Climate. The climate is semi-arid, characterized by moderate summers and cold winters. Temperature variations are quite extreme with maximum summer temperatures rarely exceeding 80° F. at the higher elevations and the minimum winter temperatures of -40° F. not uncommon. The higher elevations of Steens Mountain are quite comfortable and a welcome change from the hot, lower elevations during the summer months. This enhances the natural desirability of the area for all-purpose, general outdoor recreation use.

Average annual precipitation varies from seven inches at the lower elevations in the Alvord Desert to twenty inches or more at the higher elevations. The majority of this moisture is received in the form of snow during the months of November, December and January. Secondary moisture is received in the form of rain during April, May and June. Access to the higher elevations is limited by snow from late October through early June in most years.

Favorable growing conditions in the lower elevations occur in the spring and early summer months and gradually deteriorate with the summer increase in temperatures, accompanying low humidities and rapid evaporation rates. Growing conditions in the higher elevations continue good during most of the summer months.

3. Soils. The first group of soils is derived from basalt, rhyolite, or welded tuff and the soils are characterized by being shallow, clayey, very stony, and extremely stony. The second group of soils occur mainly in the eastern two-thirds of the area on gently undulating lava plateaus. These soils are derived from basalt, rhylolite, or welded tuff and are characterized as being very shallow and shallow, very stony, rocky, gravelly loams. The third group of soils consist of rough, steeply sloping areas that are predominantly shallow, very stony soils intermingled with rock outcrops. These areas occur as canyons and escarpments along margins and dissected portions of lava plateaus.

4. Vegetation. The general vegetative complex for the lower elevations of the area is the typical semi-desert sagebrush-grass type association. The high rim areas are characterized by subalpine type grassland. The overall complex includes a vast variation in species composition and association. Vegetative differences occur as a result of elevation changes with some plants restricted to relatively small zones while others are widely distributed. Several species are believed to be endemic to the Steens Mountain area. Some of these are identified as follows: Cusick's giant-hyssop, wild onion, Indian paintbrush, Steens thistle, Steens mustard and Steens lupine.

Juniper is widespread particularly at the lower elevations along the rocky ridges and low productive sites. Aspen thickets occupy portions of the north facing slopes and areas where snow accumulates at intermediate elevations. The mountain is practically devoid of conifers other than juniper and two small stands of white fir (Abies concolor) which are present in Fir Canyon. These

Much of the Steens is accessible only to those who like to ride or walk.

Aspen groves in the Steens Mountain area are common. In the fall their colors enrich the scenic beauty of the area.

stands are too small for commercial timber but do offer an extremely interesting ecological study area. It is unknown whether they are a relic of a larger forest or newcomers to the area.

5. Water. Steens Mountain is one of the more important watersheds administered by the Bureau of Land Management in Oregon. There are 27 perennial streams which flow from the area as well as numerous intermittent streams. Many lakes and reservoirs are also present. These sources provide water to communities, farms and ranches located around and inside the perimeter of the area. A major portion of the water for the Malheur Wildlife Refuge comes from this watershed.

   The normal run-off pattern is characterized by high spring flow with low flows during the remainder of the year. Occasionally warm rainstorms produce high flows during the late winter and early spring months.

6. Minerals.

   a. Harney County. Harney County is not noted for mineral production. In 1967 it ranked 27th of the 36 Oregon counties. Commercial mineral production in the county in recent years consisted of stone, sand and gravel.

   b. The Steens Area. There are presently no existing mineral leases, licenses or permits on the public domain within the study area.

      Geologically, the occurrence of most locatable minerals would not be expected in the study area since most of the area has a thick cover of basalts and other flow rocks or young sediments. Rock suitable for crushing, mainly basalts for road material, is plentiful.

      Most of the area is potentially valuable for oil and gas, as determined by the U.S. Geological Survey as of June 7, 1968.

      A large portion of the area is potentially valuable for sodium, as determined by U.S. Geological Survey as of June 18, 1968. Because of the remoteness of the area, high transportation costs and distance to markets, it must be expected that deposits of sodium, if found to be commercially valuable, will not be extracted within the foreseeable future.

      Although mercury and uranium mineralization does occur on Steens Mountain, it is only known to occur along the east

base of the mountain. Over 4000 feet of basalts and other flow rocks separate this mineralized area and the top of the mountain. The mineralized zone along the base of the Steens has never had any significant mineral production. Uranium deposits are spotty and not of economic value. Historic mercury production has been small, amounting to not over 50 flasks. Present production is intermittent, amounting to not over a couple of flasks per year from one property.

C. SOCIO-ECONOMIC DATA

1. Population of Harney County. The communities of Burns and Hines contain 65 percent of the county population and are located 70 miles north of the Steens.

Population Data 1960-1970

	1960	1970	1960-1970 % Change
Harney County	6,744	7,215	+ 7.0
Burns & Hines	4,730	4,700	- 1.6
Rest of County	2,014	2,515	+ 24.8

Harney County is the most sparsely populated county in Oregon with only 0.7 persons per square mile. Frenchglen, the community closest to the Steens area, is estimated to have a resident population of 30 persons.

2. Economy of Harney County. Two basic industries are agriculture and wood products. These industries employ approximately 40 percent of the 1969 labor force in Harney County.

Employment Structure in Harney County

	1969 Average Employment	Percent of 1969 Civilian Labor Force
Civilian Labor Force (Total)	3,190	100.0
Unemployment (number)	120	3.8
Employment	3,070	96.2
Agriculture	610	19.1
Non-Agricultural	2,460	77.1
Self-employed, Unpaid, Domestics	330	10.3
Wage & Salary Workers	2,130	67.8
Manufacturing	650	20.4
Food Products	-	-
Lumber & Wood Products	640	20.1
Other Manufacturing	10	0.3
Non-Manufacturing	1,480	46.4
Contract Construction	60	1.9
Trans.-Commun.-Utilities	100	3.1
Wholesale & Retail Trade	400	12.4
Finance, Insur., Real Estate	70	2.2
Service & Miscellaneous	230	7.2
Government	620	19.4

Source: Oregon Department of Employment, "Labor Force in Harney County, 1969". Prepared by the Research and Statistics Division, Salem, Oregon, July 1970.

Net effective buying income per household in Harney County was estimated to be $7,107 in 1968. This is 83 percent of the Oregon average and ranks 28th of the 36 Oregon counties. Over 19 percent of the families in Harney County have annual incomes of less than $3,000 and are classified in a poverty bracket.

Ninety-one percent of Harney County ranchers depend upon BLM forage for at least part of their year-round forage needs. Livestock and livestock products account for 92 percent of the value of agricultural products sold in the county.

3. Traffic and Tourism in Harney County. Expenditures by out-of-county recreationists are substantial. An increase in this use would affect the economic structure of Harney County and result in economic growth.

Vehicle Traffic, Burns Area

Annual Average Daily Traffic (ADT)	Year			Average Annual % Change in ADT	
	1960	1965	1969	1960-65	1965-69
Total Vehicles	1953	2679	3021	7.4	3.4

A 1970 BLM recreation use sampling in the Steens area indicates 29,500 visitors for that year. This sample also indicates only eight percent of the visitors were from the Burns area, the other 92 percent were non-local residents, whose spending is an export sale bringing new money into the county. Visitors to Steens Mountain therefore are significant contributors to the local economy.

The increasing number of tourists indicated in the State Highway data in the Burns area and general increases in recreational activity will tend to increase the use in the Steens area.

Regional Population Data
(U.S. Census data and area definition)

Area	Population			Percent Change			Estimated 1980 Population
	1950	1960	1970	1950 1960	1960 1970	1970 1980	
Harney County	6,100	6,744	7,215	10.3	7.0	6.0	7,650
Oregon	1,518,000	1,768,687	2,019,385	16.3	18.2	21.0	2,528,000
West	15,934,000	22,182,000	27,361,000	39.0	22.5	23.2	35,318,000
United States	151,400,000	179,320,000	203,500,000	18.5	13.3	15.8	235,700,000

A study of the economy in adjacent Grant County (to the north) indicates that tourist sales (exports) constitute a larger part of total sales in some sectors.

Direct Economic Contribution of
Selected Sectors with Export Sales (Grant County)

Sector	Export Sales $	Total Sales $	Percent Export Sales
Lodging	306,050	415,600	73.8
Cafe-Taverns	305,900	763,500	40.1
Automotive	902,578	8,027,277	11.2
Total Sales	20,801,295	45,399,429	45.9

Similar direct impacts in the Harney County sectors are likely. In addition to the direct impacts of purchases from non-resident recreationists, there are indirect effects which substantially increase the overall effect in the county.

D. LAND TENURE NEEDS

The area involved in this plan consists of 140,607 acres of Federal public domain under the administration of BLM, 48,693 acres of private land and 4,506 acres of State-owned lands.

The public domain has been classified for retention in Federal ownership for multiple-use management under the Classification and Multiple Use Act of September 18, 1964. While this classification is in effect, none of the public lands in the area are subject to disposal. The Bureau will consider only exchanges under the public land laws. Such exchanges will only be made when they are in the public interest.

Some of the public domain has been withdrawn from action of the public land laws for special purposes. Power site withdrawals along the Donner und Blitzen River and Kiger Creek should be reviewed and those not needed should be revoked. The public water reserves, scattered throughout the area, are not hindering management at this time.

In addition, integrity of a management plan requires withdrawal of public lands from the action of the mining laws in certain key areas. These areas are those where improvements are to be made and those where mining would destroy values the management plan seeks to preserve.

It is anticipated that a careful minerals investigation of the occupancy zone, the people influence zone, the roadless area, the Wild River Study Area and the natural areas would be made before any withdrawal from mining was proposed. In some cases, minor relocation of boundaries of these areas might be made if mineralization is found to be a factor. Thereafter, withdrawals would be proposed as required by management objectives, subject to the full public notice procedures of the Bureau of Land Management and Department of the Interior.

On most of the mountain, new roads, billboards, sub-divisions, or other developments could be highly incompatible with the mountain's scenic beauty and natural environment values. Cooperation from the present owners of private lands has been outstanding, but with increased interest in recreation homesites and other development in remote areas, pressures for development on Steens Mountain are likely to become a serious problem in the near future.

Protection of the recreation values of the mountain can be accomplished through zoning by the county. The Bureau will work closely with the Harney County Planning Commission. That Commission, through membership on the Steens Mountain Resource Committee, has shown a strong interest in preserving the beauty and environment of the mountain.

E. MAN AND THE MOUNTAIN

1. History of Resource Use. The first man to see Steens Mountain was probably a prehistoric Indian. There is no question that, at the time of the white man's coming, the mountain was superb grazing land.

   Livestock grazing has been the major economic use of Steens Mountain since white men first settled Harney County in the late 1800s and much historical background is associated with it.

   The mountain has been grazed since 1872 when Pete French exercised control on the Catlow, Blitzen and Diamond valleys, and the west side of the Steens. Meanwhile, John Devine controlled grazing on the east face of the mountain from the Alvord Ranch.

   The original Homestead Act of 1862 required at least seven months residence on the land per year, construction of a habitable house,

Indian writings or petroglyphs are found in Steens Mountain area.

Evidence can still be found of the homesteaders who settled in in this area.

and one-eighth of the 160 acre area to be cultivated. Only the bottoms of the gorges and other areas on Steens where water was available were originally filed on. Then, in 1916, the Stock-raising Homestead Act was passed which allowed up to 640 acres. Much of the better grazing land on Steens passed to private ownership under this Act, particularly where water could be controlled. Today approximately 35 percent of Steens Mountain is in private ownership, with the remaining area public lands managed by the Bureau of Land Management.

Homesteading, which prevented wandering bands of sheep from using water, plus the enactment of the Taylor Grazing Act in 1934, brought to a close the era of exploitation of the mountain for forage. However, by that time a great deal of damage had been done.

Overgrazing was apparent as early as 1901 with over 150,000 head of sheep and many thousands of cattle using the area. Overgrazing had its inevitable result. By the late 1920s or early 1930s the forage produced by the mountain was a fraction of its earlier capacity. Removal of the grass cover allowed sagebrush to invade huge areas and the watershed capacity of the mountain was vastly reduced.

The overgrazing was not without certain side effects. One was reduced competition between grass and wildflowers. Steens is famous for wildflowers.

Another was reduced competition between grass and browse plants used by mule deer. Big game populations multiplied and hunting became attractive.

Along with increased recreational use, demands were made by outdoor organizations for better access to the higher parts of the mountain. This effort culminated in a tour of the mountain in 1959, sponsored by the Portland Chapter of the Izaak Walton League and supported by the Oregon Wildlife Federation. Approximately 120 people participated in this tour.

A meeting was held November 17, 1959, with interested agencies and land users represented, to discuss the possibility of a major access project and to review the need for managing the Steens as a multiple use area. In general, sentiment was strongly in favor of taking action to insure continued public use of the Steens through improved access.

As a result of this meeting, a committee was organized and various groups interested in the future development of the

Steens were invited to participate in the planning work. This was the birth of the Steens Mountain Resource Committee, whose participation in this plan is acknowledged. Annual meetings of this group have been held since 1959.

Initial construction on the Steens Summit Road was completed in 1962. This road, together with increased publicity, has resulted in a rapid increase in recreational use and corresponding increase in damage.

2. Present Resource Use. At present there are approximately 17,000 cattle and horses and 6,000 sheep licensed to use the Federal land in the area during portions of the spring, summer, and fall months. Regulated grazing has been in process since the enactment of the Taylor Grazing Act in 1934. Livestock use is under an annual license and the area has been adjudicated on the basis of resource surveys and rating of the base ranches in accordance with the Federal Range Code. Refinements in management of livestock and revegetation of depleted areas are still needed to improve the grazing economy. It is not anticipated that any major changes in the present livestock use will occur as a result of this plan.

   During the past three years the zone of sub-alpine bunchgrass above the 8,000 foot level has not been grazed by domestic livestock. As a result there has been a marked increase in the vigor and density of vegetation growing on these fragile soils. No further grazing use by domestic livestock will be allowed on this area until a complete study of the area, along with an allotment management plan, has been completed. Consideration will be given to developing additional forage in other areas and possibly transferring part or all of the grazing demand to lower elevations. Past use has been by domestic sheep; if this is continued there is a possibility of disease being transferred to the wild bighorn sheep adjacent to this area.

3. Present Recreation Use. Under Federal executive policy governing the reporting of recreation use of Federal Recreation Areas, the "Recreation Visitor-Day" is an important statistical unit, used for several analytical purposes. A visitor-day is the presence of one or more persons on lands or waters for continuous, intermittent or simultaneous periods of time aggregating twelve hours.

   A recreation use and recreational traffic sampling was done by the Bureau of Land Management on Steens Mountain in 1970. Traffic counters and interviews were utilized to develop the use estimates which follows:

In the 1930's sheepherders left messages on the snowy barked aspen.

Sheep bridges were constructed over the deeper streams in the area. Although sheep numbers on the mountain have declined many of the bridges still remain.

1970 Steens Mountain Recreation Use Estimates

a. Average daily traffic (vehicles during May-Oct.) 57
b. Total tourist season traffic (vehicles) 8,550
c. Total visitors (3.45 persons per vehicle) 29,500
d. Total visitor days 224,200
e. Origin of visitors:

	Percent
Harney County	8
Oregon (out of county)	82
California	9
Other States	1

f. Average distance traveled from residence - 308 miles (Most visitors were from western Oregon population centers)

g. Principal activities of visitors (includes combination of activities)

	Percent
Camping	83
Fishing	77
Sightseeing	40
Picnicking	2
Other	8

h. Approximately 80 percent of the visitors indicated the primary purpose of the trip was to visit Steens Mountain.

i. The majority of the visitors (62 percent) were visiting Steens Mountain for their first time.

j. Type of vehicles observed:

	Percent
Pickup-camper	41
Passenger car	20
Car-vacation trailer	11
Pickup-vacation trailer	19
Pickup	5
Jeep	2
Camper van	2

(73 percent of vehicles are in some degree self-contained for camping use)

k. Average length of visit in area - 3.8 days (7.6 visitor days)

The 1970 sampling indicated that 73 percent of the vehicles had beds. In addition, a large majority of vehicles sampled were of types capable of off-road operation on much of the mountain.

The self-contained vehicles were observed with occupants camping at random spots on the mountain. This dispersed use was apparently not caused by a shortage of space in developed facilities, since it was observed when space was available. This use is causing damage to fragile soil and vegetation and also creates sanitation problems. Evidence of this damage is apparent in the form of vehicle tracks and ruts, litter, burned areas from campfires, and sewage and waste water dumping remains.

4. Projected Recreation Use. The recreation use trend is indicated in the Columbia-North Pacific Study. This study predicts a 170 percent increase in total visitor days by 1980 and when projected to year 2000, a 350 percent increase is indicated. These changes are at compounded annual rates of 5.5 percent and 4.3 percent respectively.

The annual rate of change in traffic in the Burns area was 7.4 percent (1960-1965) and 3.4 percent (1965-1969). For projection purposes it is assumed that the 5.5 percent annual increase estimated from the Columbia-North Pacific Study data will apply to recreation use changes in the Steens.

The projected use (1970 use increased at 5.5 percent annually) is shown in the following table:

Steen Mountain Recreation Use Projection
(Annual Rate of Increase 5.5 percent)

Year	Percent of 1970 Use	Visitors	Visitor Days*
1970	1.00	29,500	224,200
1973	1.17	34,639	263,256
1975	1.31	38,557	293,033
1980	1.71	50,389	382,956
1985	2.23	65,859	500,528

* Based on 1970 length of stay data.

The Malheur National Wildlife Refuge, located adjacent to the Steens area, experienced a 9.4 percent annual rate of increase in visitors between 1962 and 1970. Accepting the Columbia-North Pacific Study's 5.5 percent increase would, therefore, appear to be conservative.

PART III - MANAGEMENT OPPORTUNITIES

A. RESOURCE COORDINATION ZONES

Six zones have been identified within the boundaries of the area.

Zone I - The Recreation Occupancy Zone.

This zone includes campgrounds, viewpoints, picnic facilities, visitor information units, nature trails, and related facilities needed to provide for the safety and convenience of the recreation visitor.

Management Objectives: The recreation occupancy zone, although modified as needed for public use, will be managed to perpetuate or enhance the natural environmental characteristics of the site. Recreation occupancy for multi-purpose public use will be given preference over exclusive occupancy for single purpose use.

Management Guidelines:

1. Domestic livestock use will be excluded from campgrounds, picnic areas, and viewpoints. Exceptions are where public facilities are provided for horses used by recreationists.

2. As a general rule, only dead, dying, and hazardous trees will be removed from existing recreation sites.

3. Areas containing trees with infectious diseases or damaging insects will be treated as necessary to prevent spread to other trees.

4. The land within a minimum distance of 100 feet from a water attraction will not be used for permanent forms of occupancy, other than necessary facilities such as a boat ramp or foot trails.

5. Special consideration will be given to erosion control on winter sports sites. This is critical on cleared slopes and along access roads.

6. To the extent consistent with good wildlife habitat management practices, the presence of fish and wildlife will be encouraged on or near recreation use areas where they may be viewed and photographed.

7. Outdoor recreation sites will not be developed where they conflict with deer winter ranges, deer fawning, waterfowl nesting, grouse strutting and fish spawning areas.

8. Withdrawals from mineral entry will be requested for lands needed for outdoor recreation developments.

9. Land occupancies needed for other than recreational purposes will be located outside the recreation occupancy zone.

10. Rights-of-way for powerlines, ditches, flumes, etc. will be routed around this zone, if possible, otherwise the crossing will be accomplished with the least possible visual impact. Electrical power lines needed to service recreation or other activities in the zone will be installed underground unless this is clearly unfeasible.

11. Activities resulting in excessive noise detract from the value of outdoor recreation areas. Every effort will be made to minimize such detraction.

12. This area is included in the district fire prevention and control plan.

13. No off-road vehicle use should be permitted in the recreation occupancy zone.

Zone II - The People Influence Zone.

This zone is essentially a corridor or buffer strip of varying widths adjacent to the Steens Summit Road and also serves as a buffer strip around the recreation occupancy zone. It is the area where recreational use probably will have the greatest impact on the other resources.

The people influence zone is divided into two segments:

1. The foreground area or near view area consists of the immediately adjacent strip of land viewed directly and at close range.

2. The background or distance view area consists of that area beyond the foreground needed to provide an attractive backdrop. It is that portion of the zone where a view of the land is directed at the landscape as a whole, rather than at individual trees or other items.

STEENS MOUNTAIN RECREATION LANDS

LEGEND

RESOURCE COORDINATION ZONES

- RECREATION OCCUPANCY ZONE — I
- PEOPLE INFLUENCE ZONE — II
- ROADLESS ZONE — III
- NATURAL AREAS — IV
- WILD RIVER STUDY ZONE — V

EXTENSIVE RECREATION USE ZONE

- SAGEBRUSH BELT — VI_1
- JUNIPER BELT — VI_2
- ASPEN BELT — VI_3
- ALPINE BUNCHGRASS BELT — VI_4

Management Objectives: The basic direction of management for this zone varies with respect to the two segments of the zone described above:

1. The primary management objective in the foreground is to maintain the beauty and other qualities of the adjacent environment.

2. The primary management objective in the background is to maintain a thrifty, healthy, and attractive appearing area as seen from a route of travel or from a recreation site.

Management Guidelines:

1. Natural grass producing areas will be managed for sustained forage production for livestock. Aspen and juniper trees will be maintained for their esthetic values.

2. While natural environment is important in the people influence zone, it is not proposed that this zone will be managed as a natural area untouched by man. Vegetative cover may be manipulated to maintain or obtain the desired condition.

3. Soil and water values will be protected. In addition, intensive forms of watershed improvement will be given full consideration provided they can be made consistent with the objectives of the zone.

4. Wildlife and fishery habitats will be considered in any actions designed to increase the recreational value of the zone. Wildlife openings may be developed in both background and foreground of the people influence zone, provided such openings are compatible with esthetic objectives.

5. Roads and trails in the foreground of the people influence zone will be designed and built to harmonize with existing topographical and vegetative features, and to show the traveler particularly attractive views.

6. Road and trail construction in the background will be carefully planned to eliminate enduring scars on the landscape as viewed from points of public occupancy.

7. Borrow pits, stockpiles, and quarries will not be located within the foreground, unless they can be screened from direct view or designed to complement the roadside environment.

8. Roadside signing will be limited to those signs needed for public information and safety.

9. Major rights-of-way for powerlines, ditches, etc. will be located outside the people influence zone if at all practical.

10. No off-road vehicle use will be permitted during the spring and summer months.

11. No permanent forms of occupancy will be allowed in this zone.

12. The district fire plan will apply to this zone.

Zone III - Roadless Area.

The roadless area lies along the east face of Steens Mountain. It extends eastward from the eastern rim of the mountain downward to the foothills, then northward to include Kiger Gorge and southward to the Wildhorse Creek drainage. Encompassing approximately 30,000 acres, the terrain is precipitous, with gorges and benches.

Management Objectives: The roadless area shall be administered to preserve or restore primitive values including the opportunity for solitude, physical and mental challenge, inspiration, distinctive environment, and wilderness characteristics of the lands.

Natural ecological succession will be allowed to operate freely. The roadless area will be available for human use to the extent consistent with the maintenance of primitive conditions. In resolving conflicts in resource use, primitive values will be paramount.

Management Guidelines:

Recreation activities in this zone will be coordinated with other uses in the following manner:

1. Established use by domestic livestock will be continued to the extent consistent with the objective of the maintenance or improvement of soil, plant cover, and primitive values. Maintenance, reconstruction or relocation of essential livestock management improvements and structures may be permitted if they existed within a roadless area when established. Additional improvements or structures may be built only when necessary to provide management that will protect primitive values.

   When in need of heavy maintenance or reconstruction, existing range improvements or permittee structures that are in conflict

The Little Blitzen River is inaccessible to motorized vehicles. Plans are to maintain its pristine condition.

Rugged, wild scenery is typical of Steens Mountain.

with the characteristic values of the roadless area will be removed, relocated, and/or redesigned to minimize their effect on primitive values.

2. Commercial services, such as use of recreation stock by packers, outfitters, and guides will be permitted to the extent necessary to realize the purpose of roadless areas.

3. Insect and disease and fire outbreaks in roadless areas will ordinarily not be controlled. Exceptions may be necessary to protect outstanding groves, individual trees, or other plants inside the roadless area.

4. Revegetation of plant cover by natural ecological succession is preferred over artificial means. However, restoration of the plant cover in the absence of natural vegetation may be authorized where necessary to restore or to prevent deterioration of the primitive values.

5. Water storage structures and related facilities that existed under valid special use permits or easements, when the roadless area is established, may be maintained if, in the opinion of the District Manager, their continued use in the roadless area is in the public interest and in keeping with the objectives governing primitive areas.

   Watershed restoration may be undertaken when deteriorated soil and hydrolic conditions caused by man or his influence create a serious threat to primitive values.

6. Hunting, trapping, and fishing opportunities will be provided in a wilderness setting, including the harvest of wildlife and fish under seasons as designated by the Oregon State Game Commission.

   Action to control predatory mammals will be discouraged except where necessary to protect rare and endangered wildlife species.

7. No permanent forms of occupancy will be allowed and no rights-of-way for such things as powerlines will be issued.

8. Permits for commercial operation of a valid mining claim will provide for joint agreement between the BLM District Manager and the miner on protection of primitive values, consistent with the use of the area for mining, public safety, and restoration of disturbed areas.

Permits to remove common varieties of mineral material not locatable under mining laws will normally not be issued.

9. Although no roads will be constructed, trails may be built to serve, administer, and protect the primitive resources. Routes will be selected to best serve and preserve the primitive resources.

10. No motorized vehicle use will be permitted.

11. Aspen and juniper trees will be retained for their aesthetic values.

Zone IV - Natural Areas.

A natural area is an area important because of its typical, unusual, or unique geological or biological characteristics. These areas merit special attention and care in management and are of principal interest for scientific study of the natural feature.

Management Objectives: A natural area will be managed to perpetuate its value for scientific study and comparison.

Management Guidelines:

1. Cultural development such as summer homes, roads, trails, and interior fences will be excluded. Isolated areas or features may be fenced to preserve characteristics for scientific research.

2. Road construction, rights-of-way for utilities, and recreaction developments will not be allowed within the zone since they would detract from the special or unique natural features of the area.

3. Livestock use will be permitted, provided it is not detrimental to the unusual physical features of the area and does not interfere with the primary purpose of the zone.

4. Removal of juniper and aspen trees will not be allowed.

5. Soil and water resources will be protected.

6. Wildlife and fishery resources will be maintained at an optimum level, consistent with the management objectives of the specific special interest area. Hunting, trapping, and fishing would be allowed and regulated by State laws.

7. These areas should be withdrawn from mineral entry.

8. Permits to remove common varieties of mineral materials not locatable under mining laws will not be issued.

9. Trail systems may be constructed to facilitate scientific use of the unusual values which exist.

10. The District fire plan will include this zone.

11. No motorized vehicle use will be permitted.

Zone V - Wild River Study Zone.

This zone includes approximately twelve miles of the Donner und Blitzen River.

Management Objectives: The primary management objectives for this zone is to protect the wild, scenic, and primitive nature of this section of the river. Cascading through steep canyons and over falls and boulder strewn streambeds, lined with stands of dense vegetation, the Blitzen River is not navigable by boat, and following its banks presents a real challenge to the most experienced hiker. Most of the lands traversed by this river are in public ownership.

Management Guidelines:

1. Recreation developments within the zone will not normally be allowed and those that are developed will be situated so that they serve public needs but do not detract from the special or unique features of the area.

2. Livestock use will be permitted, provided it is not detrimental to the unusual physical features of the area and does not interfere with public enjoyment of the special situation.

3. The junipers and other trees and shrubs will be maintained primarily for their recreation-associated values.

4. Wildlife and fishery resources will be maintained at an optimum level. Hunting and fishing will be regulated under State laws.

5. Withdrawal from mineral entry will be requested.

6. Permits to remove common varieties of mineral materials not locatable under mining laws will normally not be issued.

7. Trail systems may be constructed to facilitate public enjoyment of the unusual recreation values which have been designated. Emphasis will be placed on preserving these special values. No additional roads will be constructed.

8. The District fire plan will apply to this zone.

9. No permanent forms of occupancy will be allowed.

10. No motorized vehicle use will be permitted.

11. Rights-of-way for powerlines will not be permitted.

Zone VI - Extensive Recreation Use Zone.

This zone includes the remaining lands in the area. This zone has many opportunities for such recreational uses as hunting, fishing, hiking, photography, sight-seeing, and winter sports.

This zone contains a number of resources or special interest areas which will require special management considerations. These include such items as outstanding scenic vistas, potential winter sports areas, important wildlife concentration areas, proposed hiking trails, and possibly, important archeological and historical areas.

Management Objectives: General management objectives for this area will be to provide for the preservation and protection of the natural and cultural values on the public lands and provide for public use and enjoyment consistent with the principles of multiple use management and maintenance of a quality environment.

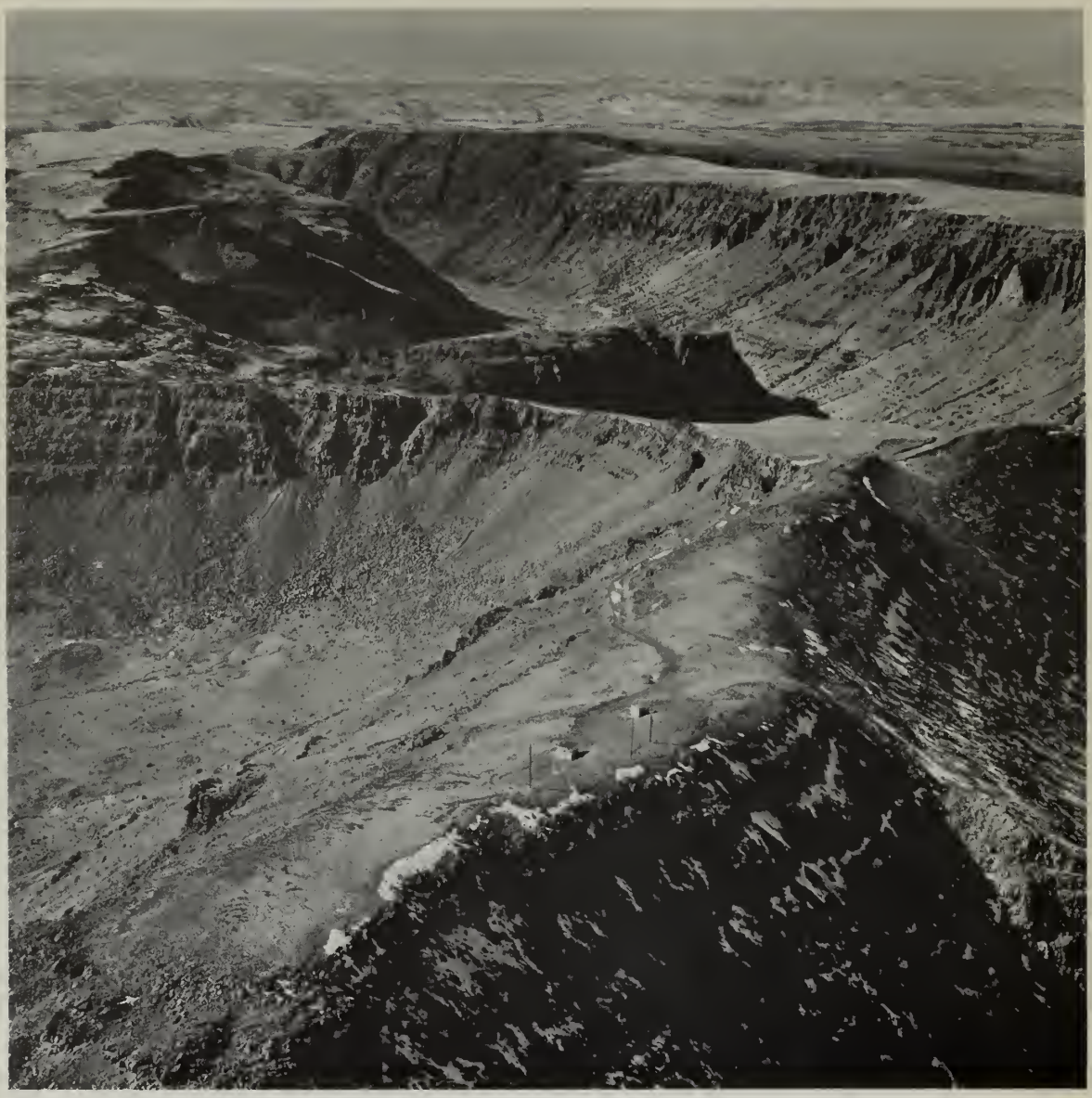
Management Guidelines:

1. No recreational developments such as campgrounds will be permitted in this zone.

2. Livestock use will be permitted, provided it is not detrimental to the unusual physical features of the area and does not interfere with public enjoyment of a special situation.

3. Aspen and juniper trees will be maintained primarily for their esthetic values. Tree removal will normally be authorized only for the improvement of scenic values or other recreation values by salvaging substantial areas destroyed by fire, disease, insects, or other catastrophies; or to improve scenic values by developing viewpoints and

Big Indian Gorge



The summit of the mountain. Radio structures are planned for re-design.

vistas. Any removal of juniper, and aspen trees, will be carefully done to avoid scarring the landscape.

4. Soil and water resources will be protected and preserved in all activities.

5. Wildlife and fishery resources will be maintained at an optimum level. Hunting, trapping, and fishing will be provided and regulated under State laws.

6. Withdrawal from mineral entry will be requested for areas only when occupancy and development would be adverse to the zones specific management objectives.

7. Permits to remove common varieties of mineral materials not locatable under mining laws will normally not be issued. The removal of mineral material without proper authority by governmental agencies will not be allowed.

8. No additional roads will be constructed.

9. Trail systems may be constructed to facilitate public enjoyment of the unusual recreation values which have been designated. Emphasis will be placed on preserving these special values.

10. The overall BLM District fire protection objectives will apply to this zone.

11. Any form of occupancy which detracts from the scenic or public recreational values of this zone will not be allowed.

12. No utility lines will be allowed on federal lands within this zone unless they are underground.

B. VEGETATIVE BELTS

There are extreme differences in elevation, topography, soils, and vegetation within the Steens Mountain area. Because of this, it will be necessary to place additional constraints on uses permitted. There are four general vegetative belts: Sagebrush Belt, Juniper Belt, Aspen Belt, and Alpine-Bunchgrass Belt.

1. The Sagebrush Belt includes lands that are generally below 5,500 feet in elevation.

a. This area contains the normal winter range for mule deer. Because of this, winter sports such as snowmobiling will not be allowed below the 6,000 foot elevation.

b. Other resources in this belt will be managed so that their use does not adversely affect the wintering mule deer and their habitat.

2. The Juniper Belt lies generally between the 5,500 foot elevation and the 6,500 foot line. Much of this belt is inaccessible by vehicle because of the rocky soils and steep rim-rocked canyons that bisect the area.

   a. Off-road vehicle use will not be permitted during the spring and summer months.

3. The Aspen Belt lies between the 6,500 foot elevation and the 8,000 foot elevation. This belt is characterized by large groves of quaking aspen interspersed with small meadows and patches of sagebrush and mountain mahogany.

   a. Winter sports such as cross-country skiing and snowmobiling will be confined to this belt.

   b. Off-road vehicular use will not be allowed in this area during the spring and summer months.

4. The Alpine Bunchgrass Belt is the area generally above the 8,000 foot elevation. The Alpine Bunchgrass Belt contains an abundance of wildflowers, open meadows, glaciated valleys, geologic features, lakes, and outstanding scenery. Soils and vegetation are fragile in this zone.

   a. Grazing of domestic livestock will be allowed only to the extent necessary to manipulate vegetation to maintain existing flowers and stabilize fragile soils.

   b. Programs to re-establish or supplement plant cover may be undertaken where needed for game habitat and watershed improvement.

   c. Watershed values will be given primary consideration to promote optimum yield and deliveries of usable water in stable stream flows or sub-surface supply.

   d. Trails, and scenic vistas will be designed and built to retain esthetic qualities and protect fragile resources.

The need for both concentrated recreation and primitive type recreation use will be recognized.

e. Because of dangerous snow conditions, no snowmobiling will be allowed above the 8,000 foot level.

f. No off-road wheeled vehicle use will be permitted in this area.

C. RECREATION MANAGEMENT

Recreation use of Steens Mountain will increase in the future. The following programs are needed to protect and manage recreation as a resource and provide for the information, convenience, and safety of visitors.

1. Information Program

a. Visitor Center. A visitor center located near the town of Frenchglen is planned. This center would provide a comprehensive program of visitor information services, covering sightseeing, hunting, fishing, winter sports, etc., plus such information as is desired by the visitor concerning other BLM programs, the Malheur National Wildlife Refuge road conditions, and points of interest. The visitor center may be developed as a cooperative facility with the Malheur National Wildlife Refuge if such a facility will adequately meet the interpretive needs of both agencies. It will also provide administrative office space, public toilets, a lobby and space for exhibits.

b. Publications. Publications specifically about recreational use of Steens Mountain will be prepared, including area and vicinity maps, outdoor conduct rules, description of recreation and other resources, and other information materials. Special publications for hunting and fishing, wildlife observation, and geology will also be needed.

c. Entrance Facilities. If the visitor center is located east of Frenchglen, entrance facilities could be established in cooperation with the Malheur National Wildlife Refuge at the south end of Frenchglen. A small wayside would provide a portal sign including a map of the general area (with roads and points of interest) to quickly orient visitors as to what there is and where he can find things. If Highway 205 is relocated to by-pass Frenchglen, this entrance portal would be moved to the road junction north of Frenchglen.

d. Bulletin Boards. Each of the campgrounds and picnic areas will have a bulletin board for display of permanent and temporary information for the interest, safety and convenience of the public.

2. Interpretive Program. Two principal interpretive themes are recommended. The first is Steens Mountain geology. The second is Steens Mountain ecosystems. Wildlife interpretation also could be provided.

a. Steens Mountain Geology Theme

(1) General: A broad geological coverage of Steens Mountain to show the Steens as part of the regional geology should be given. The reason why eastern Oregon is a desert might also be shown with the rain-shadow effect of the Cascade Mountains emphasized.

(2) Ice Action on Valleys: A major interpretation job could be done at the Kiger Gorge Overlook telling about the U-shaped valley, cirques and cols resulting from glacial ice action.

(3) Ice Striation and Glacial Lakes: The effect of ice on bedrock and the evolution of glacial lakes could be interpreted.

(4) Ice Jams and Glacial Lakes: At the Wildhorse Lake overlook the glacial action in Wildhorse Canyon could be interpreted.

(5) Basalts and Glaciation: The various basalt flows and contact zones could be interpreted at the East Rim overlook.

(6) Moraines: A lateral moraine east of the Rooster Combs could be interpreted to indicate the evidence and final actions in the glaciation of the Steens.

b. Steens Mountain Ecosystems Theme

(1) General: An overall coverage of the vegetative zones and ecosystems will be provided. Natural areas should be explained and identified.

(2) Sub-Alpine Bunchgrass Ecosystem: Interpretation of the sub-alpine could be done on the trail to the Wildhorse Lake

Rustic countryside on the way up Steens Mountain.

Aerial view of Wildhorse Lake

overlook. The effect of domestic animals and off-road vehicles could be emphasized in interpreting the fragility of the ecosystem to unnatural pressures.

(3) Aspen Ecosystem: The aspen ecosystem could be interpreted in the vicinity of Fish Lake.

(4) Juniper Ecosystem: The Buckskin campground area could provide the location for interpretation of the Juniper ecosystem. Human use and manipulation can be brought out as well as the interplay of plants and animals. A roadside stop with interpretation could be established at the Big Juniper to point out this special tree and tell its story.

(5) Tall Sage Ecosystem: The interplay between sage and deer could be told as part of the tall sage ecosystem interpretation. Also emphasized would be the manipulation of land use to provide additional winter deer range.

c. Wildlife. Observation points on the rim of the Steens will afford excellent viewpoints for spotting bighorn sheep, deer, and many smaller animals and birds. Unregulated human movement along the rim with the usual noise and rock-rolling could cause species such as mountain sheep to leave that area. Therefore, facilities must be carefully located and designed. Opportunities for viewing and photographing sage grouse, waterfowl, small mammals and song birds are abundant over most of the mountain. Pronghorn antelope can also be seen at almost any elevation. Mule deer winter ranges can be defined and their importance emphasized.

d. Interpretive Research Needs. Botanically oriented studies are needed to make certain the endemic species are well represented in the natural areas, determine how the sub-alpine ecosystem works and establish a complete herbarium of sub-alpine and other important plants. An analysis of the unique firs on the Steens is needed. A weather station should be established at the crest of the mountain and another at about 7,500 feet elevation.

An archeological-historical inventory should be made to gather information on Indian use and white homesteads, especially the unpatented homesteads. Owners of lands, past and present, should be traced. Possible sites of Indian-Army activities in the Steens during the Bannock War (1860s) and later, should be researched and the information made available to the public.

3. Visitor Protection. Most of the higher elevations of the Steens, including rims and canyons, are extremely precipitous. Unregulated use of this area could be hazardous to recreationists. Steep cliffs, unsure footing, high winds, and unwary visitors pose serious safety problems. Recreationists must be protected by rock walls or similar protective barriers at viewpoints. This will also preclude the usual rock-rolling and other activities resulting in damage to fragile rims. Elderly or unwell persons should be warned of high altitudes on the mountain.

   a. Search and Rescue. BLM personnel on the mountain will be trained in first aid procedures. An airstrip is located at Frenchglen and air transportation could get a patient to Burns in a short time. Personnel of the Oregon State Game Commission, the Oregon State Police, Bureau of Sport Fisheries and Wildlife, and the county sheriff can aid BLM in possible searches or other emergency actions.

   b. Patrol. A daily auto patrol throughout the summer and during the winter sport season will be necessary. A snow vehicle should be secured to enforce snowmobile regulations, for first aid, and search and rescue.

   c. Communications. The various sites on the mountain and the BLM District Office in Burns should be linked by radio. The visitor center should also be connected to the area telephone exchange. BLM vehicles on the mountain should be radio-equipped.

   d. Sanitation. U.S. Public Health Service and Oregon State standards must govern all developments and water supplies to insure visitor health protection.

   e. Fire. As use increases, the danger of man caused fires will also increase. BLM personnel will be trained in fire prevention, and patrol vehicles should have a pump and tank for control of minor fires before they become unmanageable. The present District fire organization must be expanded to protect the anticipated recreational developments.

   f. Traffic Control. Federal Highway Administration standard traffic control signing and marking will be used. All vehicles should be confined to existing roads, except snowmobiles in designated areas. No vehicles, including snowmobiles, will be allowed off the Summit Road above the 8,000 foot level. The Summit Road will be closed above the 6,000 foot level to all wheeled vehicles during the winter months to protect the road system and visitors.

4. Commercial Services. No commercial facilities should be allowed on public lands. The town of Frenchglen provides food, lodging, and gasoline. Burns provides all usual urban services and facilities.

   a. Commercial Horse Outfits. Special land use permits may be issued for crossing and use of public lands. Permit issuance will be at the discretion of the District Manager and will be limited to numbers conducive to good resource management and economics.

   b. Lodges. No commercial accommodations are available on Steens Mountain. A small number of tourists can be accommodated at the Frenchglen Hotel.

   c. Private Campgrounds. A private campground, Steens Mountain Camper Corral, is presently being constructed near Frenchglen. The location and quality of this development should complement the over-all recreational program for the mountain.

5. Management of Specific Recreation Activities. The principal attraction and recreational value of Steens Mountain is its natural environment. When any type of recreational use or other activity degrades the environment, it will be modified or restricted.

   a. Picnicking. Picnicking developments in conjunction with campgrounds will be provided. Informal "tail gate" and roadside picnicking can be permitted as long as sanitation and safety requirements are met.

   b. Camping. All camping should be at designated sites. Informal camping will be discouraged in lower elevations and not permitted above the 8,000 foot level during spring and summer months, to avoid damage to vegetation.

   c. Hiking. Hiking trails will be planned. Present trails for hunting and fishing are adequate. The establishment of a High Desert Trail, part of which would pass through the area, will be considered in the trail system for the mountain.

   d. Rock Climbing. This activity will be discouraged due to the poor climbing conditions.

   e. Horse Riding. Corrals could be located at lower elevations where trampling damage would be minimal. Facilities such as water troughs and hitching rails could be provided. Horse use should be carefully regulated to prevent damage to frail sites along the rims and cirques. Horses should be kept at designated sites only.

f. Hunting and Fishing. Hunting and fishing will be allowed during seasons established by the Oregon State Game Commission. Areas within, and adjacent to, developed recreation sites will be closed to hunting for safety reasons. It is not anticipated that restricting off-road vehicle use will adversely affect the harvest of fish and game animals.

g. Target Practice. Target practice with firearms will not be permitted where it poses a safety problem, causes damage to the environment, or contributes to litter.

h. Rockhounding. The upper Steens Mountain is not an important rockhound area. Some minerals are present at lower elevations, especially on the east face where thundereggs are fairly numerous. Surrounding areas such as the Pueblo Mountains to the south are more productive for rockhounding activities. Information as to locations will be made available to the public. Excavations which are eyesores, or destructive collection methods, such as by blasting, will be prevented.

i. Winter Sports. Snowmobiling and skiing are expected to become more popular in this area. As winter sports increase, conflicts between these two groups may make it necessary to designate separate areas for each activity.

Winter sports will be confined primarily to the areas between the 6,000 and 8,500 foot elevations because of wintering mule deer at the lower elevations and dangerous snow and ice conditions at the higher elevations.

PART IV - DEVELOPMENT PLAN

To accommodate visitors to the Steens Mountain area, there are opportunities for several new or improved recreation sites, overlook points and waysides. These places are all connected by the Steens Mountain Summit Road, plus spur roads from it.

All recreational developments will be designed to meet the needs of visitors, and facilitate management of the area. All buildings and associated structures will follow the theme of western style structures with low lines and in keeping with the natural environment. Native materials will be the preferred materials. All structures, including roads, will be designed and constructed so that they blend into the surrounding landscape. The goal is to retain the natural environment and beauty of the area and to subdue the physical developments which must be placed on the land to accommodate outdoor recreation and other uses.

A. ROADS AND TRAILS

1. Road System. Steens Mountain Summit Road is approximately 70 miles long, from Frenchglen to the top and back to State Highway 205. This includes short spur roads to vistas and recreation sites.

   The present road is not suitable for modern passenger car travel even at slow speeds. It is receiving heavy traffic from all kinds of vehicles although the majority are pickups or other vehicles more suitable for rough roads than passenger cars. Dust is a problem. Maintenance is extremely expensive because of poor drainage.

   The standard for initial improvement of Steens Mountain Summit Road is 24 feet wide with crushed rock surface. No change from the present location of the summit road is contemplated. No additional roads will be built. Early season use of the road before it has dried out is causing damage.

2. Trail System. Snowmobile trails will be posted between Buckskin and Fish Lake recreation sites and between the posted elevations of about 6,000 to 8,000 feet.

   Short self guiding nature trails will be constructed near recreation sites and viewpoints to implement the interpretive program. The maximum trail width should not exceed three feet.

Initially, trails other than nature trails should be designed to accommodate both hiking and horseback use. Trail wayside rests and support facilities will be selected at the time the trails are laid out on the ground.

A "Desert Trail" has been proposed which would traverse Nevada, Eastern Oregon, and Eastern Washington in a north-south direction. If this trail becomes a reality, it would pass through the Steens Mountain area. Trails on the Steens will be located in such a manner that the proposed "Desert Trail"can be incorporated into the Steens trail system.

B. RECREATION SITES AND OVERLOOKS

Certain recreation facilities are planned to accommodate and manage recreation use of Steens Mountain in such a manner that the unique environment of the area is maintained. Each is designated on the accompanying map with a Roman numeral corresponding to the one shown below after the name of the facility.

1. Frenchglen Entrance (I)

   a. Existing Facilities: None

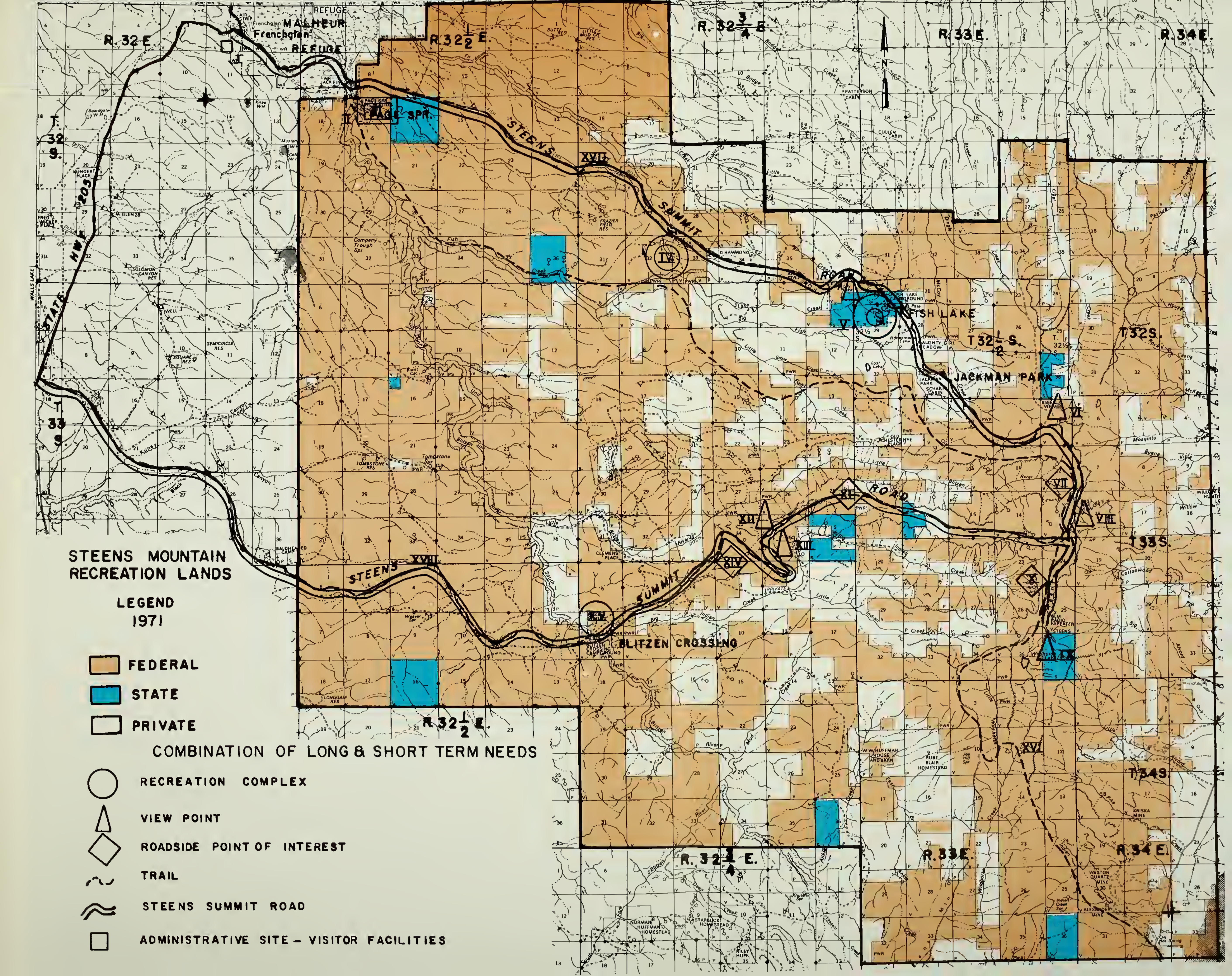
   b. Comment: A visitor contact point will be constructed near the entrance to Steens Mountain.

   c. Developments: Portal sign, directional signs, information desk, parking, drinking water, flush toilets, and electric lights.

2. Page Spring Campground (II)

   a. Existing Facilities: Camping units - 12, picnic units - 6, sanitary facilities - 4, water (spring with short distribution line), one-half mile nature trail, and parking for ten cars.

   b. Comment: The site is a floodplain with a shallow water table. Sewage disposal at this site is difficult. Destruction of ground cover is causing considerable soil erosion into the river. This site has heavy concentrations of mosquitoes during the spring. Rattlesnakes are frequently found in the area. A very limited vegetative cover of juniper exists.


STEENS MOUNTAIN
RECREATION LANDS
LEGEND
1971
FEDERAL
STATE
PRIVATE
COMBINATION OF LONG & SHORT TERM NEEDS
RECREATION COMPLEX
VIEW POINT
ROADSIDE POINT OF INTEREST
TRAIL
STEENS SUMMIT ROAD
ADMINISTRATIVE SITE - VISITOR FACILITIES
MALHEUR
REFUGE
Frenchglen
PAGE SPR.
FISH LAKE
JACKMAN PARK
BLITZEN CROSSING
STEENS SUMMIT ROAD
STATE HWY 205
R. 32 E.
R 32 1/2 E.
R. 32 3/4 E.
R. 33 E.
R. 34 E.
T. 32 S.
T. 33 S.
T 32 1/2 S.
T 33 S.
T 34 S.

c. Developments: When other areas are developed, camping use at Page Springs will be phased out or permitted only during periods when other sites are unavailable for use. The site will be redesigned primarily for fishing access.

3. Administrative Site - Visitor Center (III)

a. Existing Facilities: The present administrative site is located at Lily Lake and consists of a bunkhouse and horse corral.

b. Comment: The Bureau needs facilities to accommodate storage of supplies and materials to accomplish maintenance. Present facilities at Lily Lake are inadequate eyesores detrimental to the esthetics and ecosystems of the area and will be removed when alternate facilities are available. Facilities are needed near the north entrance for major visitor contact, policing year-round use, education, fee collection, use information, interpretive displays, and staff housing.

c. Developments: Visitor center with public parking, administrative office and staff buildings, trailer dump station, shop building and yard with vehicle storage.

4. Buckskin Recreation Complex (IV)

a. Existing Facilities: None

b. Comment: This area is an attractive juniper-mountain mahogany site presently being used for primitive campsites, and as an access point for fishing along Fish Creek. Because of its location on rocky soils and the juniper cover it would be suitable for year-round use. The site will be investigated for a potable water supply and sewage drain field to support such development.

c. Developments: Treated water distribution system, camping units, parking and visitor protection, horse corral, hiking and riding trails, snowmobile trails, cross-country ski trails, winter warming shelter, and ecosystem nature trail.

5. Fish Lake Recreation Complex (V)

a. Existing Facilities: Picnic units - 8, camping units - 20, sanitary facilities - 5, boat ramp - 1, car parking, trails, and water (spring development).

b. Comment: The existing spring development does not meet State health standards. The sanitary facility at the west end of the campground is a prominent eyesore fully visible from all points adjacent to the lake on the east side. It should be removed and the site restored when adequate facilities are constructed to replace them.

Camping use at the west end of the lake is drastically damaging existing vegetation. These units will be removed and the site restored as soon as alternate facilities can be constructed.

Other detrimental ecological disturbances are occurring, including those caused by: Soil erosion from original road beds; unmanaged camper use, boat trailer parking and motorcycling; people making footpaths from the picnic units down to the lake; fireplace ashes being disposed of adjacent to family units; oil and gas film on the lake from boat motor usage; soap from recreationists bathing in the lake; and horses which are permitted to stay in the recreation site.

c. Developments: An overall site plan for this area , including Jackman Park properties, will be developed to correct the existing conditions.

6. Kiger Viewpoint (VI)

a. Existing Facilities: None

b. Comment: Access has evolved through continued use. The worn rim ledges are dangerous. Areas along the rim have been denuded of throwing stones. Fragile alpine vegetation has been destroyed by trampling.

c. Developments: Abused areas will be restored to native ground cover; graded parking area will be provided; cuts and fills will be covered with native stones for esthetics; paved trails will be provided for handicapped access and to preclude removal of loose rocks for throwing; native stone masonry protection walls with rails are needed for visitor safety; interpretive signs will be low profile, set in stone; and sanitary facilities will be provided adjacent to parking area.

7. Little Blitzen Viewpoint "A" (VII)

a. Existing Facilities: None

Increasing use on Steens requires additional facilities.

The campground at Fish Lake is popular with campers. The Oregon State Game Commission annually stocks the lake with trout, providing a productive fishery.

b. Comment: Access has evolved through continued use. The worn rim ledges are extremely dangerous. Fragile alpine vegetation has been destroyed by trampling.

c. Developments: Roadside parking will be provided with a native stone masonry visitor protection wall and point of interest sign.

8. East Rim Viewpoint (VIII)

a. Existing Facilities: None

b. Comment: Access has evolved through continued use. The worn rim ledges are extremely dangerous. Fragile alpine vegetation has been destroyed by trampling.

c. Developments: Parking will be provided. Trail and viewpoint area will be paved. Native stone masonry visitor protection walls will be constructed, including interpretive signs.

9. Wildhorse Peak Viewpoint (IX)

a. Existing Facilities: Radio repeater buildings and poles; and roads to radio repeater buildings and to the Wildhorse Lake viewpoint.

b. Comment: The worn rim ledges are extremely dangerous. Fragile alpine vegetation has been destroyed by trampling. Radio repeater and poles degrade the environment and destroy natural beauty. Roads are a public safety hazard.

c. Developments: Roads to both sites will be closed to vehicle use. A new turn-around and loop parking will be developed in the saddle. Paved trails will be constructed on abandoned road grades. Radio repeater buildings and antenna poles will be removed. New receiving and equipment housing will be designed as part of a native stone masonry observation structure. Sanitary facilities will be constructed adjacent to parking area. Interpretive signs will be low profile, weatherproof, and mounted in stone. A weather station will be installed at the peak observation structure.

10. Big Indian Viewpoint "A" (X)

a. Existing Facilities: None

b. Comment: Access has evolved through continued use. The worn rim ledges are extremely dangerous. Fragile alpine vegetation has been destroyed by trampling.

c. Developments: Roadside parking will be provided, with a native stone masonry visitor protection wall and interpretive facilities.

11. Moraine Wayside (XI)

a. Existing Facilities: None

b. Comment: A roadside stop is needed here as part of the interpretive program explaining glacial action.

c. Developments: A roadside pull off with parking and interpretive facilities.

12. Little Blitzen Viewpoint "B" (XII)

a. Existing Facilities: None

b. Comment: The worn rim ledges are extremely dangerous. Fragile alpine vegetation has been destroyed by trampling.

c. Developments: Roadside parking will be developed with stone protection wall. A paved trail will be built out to the viewpoint, where a protective barrier will be built.

13. Big Indian Viewpoint "B" (XIII)

a. Existing Facilities: None

b. Comment: This would be at a viewpoint not presently used.

c. Developments: Roadside parking will be constructed, with a native stone masonry visitor protection wall and a point of interest sign.

14. Juniper Wayside (XIV)

a. Existing Facilities: None

b. Comment: An exceptionally large juniper tree is located adjacent to the road.

c. Developments: Roadside parking, and an interpretive sign.

15. Blitzen Crossing Recreation Complex (XV)

a. Existing Facilities: Camping units - 4, and sanitary facilities - 3.

b. Comment: Existing sanitary facility locations do not comply with State requirements. Existing use is excessive for fragile riverbank location and vegetation. Existing facilities other than tables are obsolete and decayed.

c. Developments: The area will be investigated for a water supply and sewage disposal area. When alternate sites in the near vicinity are developed, the existing site will be closed, made inaccessible to vehicle use, and reseeded.

16. Desert Trail (XVI)

a. Existing Facilities: None

b. Comment: If the proposed desert trail becomes a reality, the route selected will allow hikers to view scenic areas, avoid bighorn sheep habitat, stay on public lands most of the way, and allow access to the majority of the recreation developments by short side trails.

c. Developments: Initial development would consist of marking or monumenting the route rather than actually constructing a trail.

C. UTILITIES

1. Water System. Water investigation and test holes are needed as prerequisite to any development. Pressurized treated water systems will be the preferred method of supplying water for recreation sites in order to meet standards of the State Department of Environmental Quality.

2. Irrigation System. Adequate water for irrigation will be necessary at the Administrative Site and Visitor Center to maintain the shrubbery and other vegetation.

3. Garbage and Refuse. All garbage and refuse will be disposed of at a central dump area which will be of a sanitary land fill type. A cooperative dump site with the town of Frenchglen is presently being considered.

4. Sewage System. Each site will be thoroughly investigated to see whether the soil will support a conventional drainfield for sewage and waste water. These investigations would consider depth to clay layers, depth to bedrock, slopes of the surface slope of any restricting layers and the percolation rates for the soil zones above any restricting layers.

   A septic tank and drainage field system will be constructed at the Administrative Site and Visitor Center. A trailer dump site will be installed at the Administrative Site and may, as the demand increases, be provided at recreation sites.

5. Telephone System. Telephone service will be provided at the Administrative Site and the Visitor Center. All telephone lines will be placed underground.

6. Radio System. The Administrative Site, Visitor Center, BLM vehicles and Burns District Office would be linked by radio communications. Emergency portable radio systems will be on hand at the Administrative Site to assist in search and rescue and fire suppression.

7. Power System. Power service will be supplied to the Administrative Site and Visitor Center. All cable will be underground. L.P. gas powered generators can power pumps at recreation development sites.

D. FISHING IMPOUNDMENTS

There are a number of sites on Steens Mountain where fishing impoundments could be constructed at the lower elevations. Engineering feasibility studies and negotiation for water rights must be completed before final selection of a site or sites is possible.

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APPENDIX A

Contributors to the Plan

Farm Bureau Federation
Federation of Western Outdoor Clubs
Green Thumb Garden Club
Harney County Art Association
Harney County Chamber of Commerce
Harney County Historical Society
Harney County Stockgrowers
Izaak Walton League
Landowners on Steens Mountain
Oregon Cattlemen's Association
Oregon Environmental Council
Oregon Wildlife Federation
Power River Sportsmen
Sierra Club
Western Outdoor Writers Association
Wildlife Management Institute
City Council of Burns
City Council of Hines
Harney County Commissioners
Harney County Court
Harney County Planning Commission
Cooperative Extension Service
Oregon Department of Lands
Oregon Department of Parks & Recreation
Oregon Department of Transportation
Oregon Governor's Office
Oregon State Game Commission
Oregon State Police
Agricultural Stabilization Conservation Service, USDA
Bureau of Land Management, USDI
Bureau of Outdoor Recreation, USDI
Bureau of Sport Fisheries and Wildlife, USDI
Forest Service, USDA
Malheur National Wildlife Refuge, USDI
Squaw Butte Experiment Station, USDA
Burns District Advisory Board
Sunrise Garden Club